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THESIS

THE INDIAN OCEAN TRANSPORTATION CHANNELS--A REVIEW OF THE AIR LOGISTICS INFORMATION AVAILABLE TO THE END-USER SUPPLY OFFICER

by

Richard N. Bradshaw

December 1985

Thesis Advisor:

John W. Creighton

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The Indian Ocean Transportation Channels-A Review of the Air Logistics Information Available to the End-User Supply Officer

by

Richard N. Bradshaw
Lieutenant Commander, United States Navy
B.A., University of Missouri, 1973

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ABSTRACT

The main source of transportation information concerning Indian Ocean logistics channels is contained in widely dispersed manuals and not tied together so that an end-user Supply Officer deploying to the area can understand how material is to reach him in accordance with UMMIPS standards. In addition, an explanation of the use of international air freight forwarding is even more difficult to find. This study reviews various sources of transportation information for the benefit of an end-user Supply Officer onboard a Naval vessel which may be deployed to the Indian Ocean, and who will have need for knowledge of how material will reach him in accordance with established directives and the UMMIPS time standards. study highlights the air logistics channels in use to the Indian Ocean with emphasis on the use of the international air freight forwarder. The author's conclusion is that Navy publications, directives, instructions, and briefings need to be updated to reflect the methods and procedures for using the air freight forwarders services and the transportation channels This knowledge needs to be disseminated to the enduser Supply Officers to help them decide whether air freight forwarding will meet or exceed the UMMIPS time standards when ordering material.

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LIST OF ABBREVIATIONS AND ACRONYMS

AB Air Base

AFB Air Force Base

BIOT British Indian Ocean Territory

CASREP Casualty Report

CINC Commander in Chief

COMFAIRWESTPAC Commander Fleet Air Western Pacific

COMNAVSURFPAC Commander Naval Surface Force U.S. Pacific

Fleet

COMNAVSURFGRU Commander Naval Surface Group

COMSEVENTHFLT Commander Seventh Fleet

CONUS Continental United States

COSAL Coordinated Shipboard Allowance Lists

CTF Commander Task Force

FAD Force Activity Designator

GBL Government Bill of Lading

I.O. Indian Ocean

JCS Joint Chiefs of Staff

INTL International Airport

LOGNOTE Logistics Notice

MAC Military Airlift Command

MATCO Military Air Traffic Coordinating Office

MILSTAMP Military Standard Transportation and Movement

Procedures

MILSTRIP Military Standard Requisitioning and Issue

Procedures

MLSF Mobile Logistics Support Force

MOTBA Military Ocean Terminal Bay Area

MSC Military Sealift Command

MTMC Military Traffic Management Command

MTMCWA Military Traffic Management Command Western

Area

NAVMTO Navy Material Transportation Office

NAVSUPSYSCOM Naval Supply Systems Command

NOACT Navy Overseas Air Cargo Terminal

NMCS Not Mission Capable Supply

NSC Naval Supply Center

NSD Naval Supply Depot

NSN National Stock Number

PD Priority Designator

PMCS Partial Mission Capable Supply

POD Point of Debarkation

POE Point of Embarkation

RDD Required Delivery Date

TAC Transportation Account Code

TCMD Transportation Control Movement Document

TCN Transportation Control Number

TO Transportation Officer

TOA Transportation Operating Agencies

TP Transportation Priority

UMMIPS Uniform Materiel Movement and Issue Priority

System

UND Urgency of Need Designator

WESTPAC Western Pacific

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A special thanks to my family: Peg, Elizabeth, Nolan, and Matthew for their patience and understanding.

I. INTRODUCTION

A. GENERAL

The continued presence of United States Naval forces in the Indian Ocean has created the need for a well defined transportation support system which must be structured to provide a smooth interface with both the operational and tactical requirements of the forces present. All deployed Naval forces require knowledge of the transportation system used by the afloat Supply Officers in order to support each unit's missions while deployed.

The primary participants in this system include:

- a. Military Traffic Management Command (MTMC)
- b. Military Airlift Command (MAC)
- c. Military Sealift Command (MSC)
- d. Mobile Logistics Support Force (MLSF)
- e. The end-user Supply Officers

There is much available information concerning each of the separate participant groups listed above, but it is not centralized under one source. Much of it is out of date, difficult to obtain, and often too confusing for the end-user Supply Officer's use to make critical decisions on how to ensure that material ordered will arrive within Uniform Materiel Movement and Issue Priority System (UMMIPS) time standards. Existing information concerning the transportation

channels/methods, including the use of air freight forwarding, which will be used to move material to them while deployed to the Indian Ocean is not readily available nor made known to the deploying Supply Officer. There does not appear to be a manual nor single reference guide which ties the Indian Ocean transportation pipeline together. A need exists to remove these deficiencies.

B. PURPOSE

The purposes of this paper are: 1) to describe the current Indian Ocean transportation system which is in place and being used to move cargo from the West Coast of the United States to the Indian Ocean Carrier Battle Group; 2) to discuss how well the various modes within the system interface (in particular, the air transportation channel) in order for the end-user (Naval Afloat unit) to make the best use of it; and 3) to serve as a guide to Supply Officers for the consolidation of information concerning the Indian Ocean transportation channels for a unit deploying from the West Coast of the United States to the Indian Ocean. The major emphasis will be on the air transportation system to the Indian Ocean.

C. BACKGROUND

The United States Navy date's its interests in the Indian Ocean region from the mid 1960's. The following significant events and facts have contributed to this expansion of interests:

- a. The technological development of U.S. ballistic missile carrying nuclear capable submarines to be deployed to the Arabian Sea, placing them within striking range of the USSR;
- b. The decision by Britain to withdraw its military forces from regions east of the Suez;
- c. The appearance of Soviet Naval vessels in the Indian Ocean shortly after the British announcement of their force withdrawal;
- d. The area is a source of strategic materials which are considered to be extremely vital to Western industrial economies.

U.S. Naval interest in this region prior to these events was primarily for the use of the Indian Ocean as a route for U.S. ships transiting from the Atlantic to the Far East. However, because of incidents such as the closing of the Suez Canal in 1972, the fall of Iran in 1979 with Americans being taken hostage by the new Iranian regime, the current Iran-Iraq war, where civilian tankers in the Persian Gulf are being attacked by both countries, and the Soviet occupation of Afghanistan since 1979, U.S. presence and interest in the Indian Ocean has escalated to the point where one full Carrier Battle Group is maintained on station in the Indian Ocean. The United States interprets the Soviet move into Afghanistan as a serious threat to the security of this nation. With this increase in interest and Naval force size, has evolved an escalating need for transportation channels necessary to support the growth in requirements, from minimal support for the occasional transiting vessel to full-scale support for the Carrier Battle Group. [Ref. 1]

D. SCOPE

This report will consider only the U.S. West Coast-toIndian Ocean transportation channels used to move material,
and disregard discussion on the existing channels from the
East Coast of the U.S. to the Indian Ocean. It will look only
at the movement of material which is of a non-casualty reporting nature. CASREP required material is ordered whenever a
primary mission of the ship cannot be fulfilled due to lack of
parts. CASREP material receives intensive action and tracking
by specific shore supply activities to ensure timely receipt
through the transportation system.

This report will also review the various modes of the transportation system, from the perspective of a Naval Afloat Supply Officer onboard a unit which has deployed from the West Coast of the U.S. to the Philippines and then travels on to join the Carrier Battle Group stationed in the North Arabian Sea of the Indian Ocean. It is assumed that a Battle Group will continue to remain on station somewhere in the Indian Ocean on a full-time basis in the future.

E. METHODOLOGY

The methodology employed to develop this thesis consisted of a comprehensive review of current literature, Naval Instructions, messages, Naval directives, Naval operational orders (OPORDERS), Naval "Lessons Learned" files, and telephone interviews with Naval, government, and civilian transportation personnel.

F. ORGANIZATION

Chapter II describes the general scenario, Chapter III the primary participants in the Indian Ocean transportation channels, Chapter IV the Uniform Materiel Movement and Issue Priority System, and Chapter V international air freight channels.

Chapter VI, the summary, conclusion, and recommendations section, reviews the effectiveness of the Indian Ocean transportation system as a support device for the end-user Naval Afloat Supply Officer, provides recommendations for improvement of the transportation channels, and the information dissemination systems, and makes suggestions for effective use of the systems.

II. INDIAN OCEAN LOGISTICS SCENARIO

A. LOGISTICS SUPPORT

In general, as a U.S. Naval vessel deploys between the western United States and Hawaii, it is supplied by the nearest Naval Supply Center (NSC) where it enters port (NSC's: Oakland, San Diego, Bremerton, or Pearl Harbor). Going beyond Hawaii, enroute to the Indian Ocean, the unit will have as its primary supply channel a unit of the Mobile Logistics Support Force (MLSF) or the Naval Supply Depot (NSD) located in Subic Bay, Philippines. The NSD is resupplied by NSC Oakland through MSC vessels and MAC aircraft. Once a ship moves behond NSD Subic enroute to the Indian Ocean, all direct support for it falls solely on deployed MLSF units. The MLSF units resupply themselves by returning to NSD Subic on a monthly basis.

Commander Task Force SEVEN THREE (CTF SEVEN THREE, also designated as Commander Naval Surface Group Western Pacific, COMNAVSURFGRU WESTPAC) is located in Subic Bay, Philippines and is the primary logistics agent in the Western Pacific.

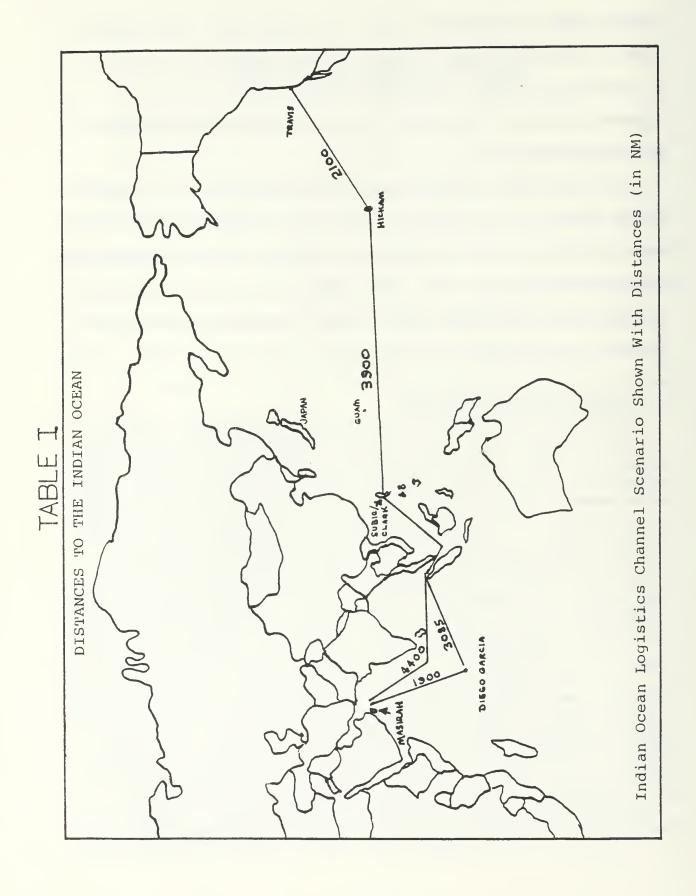
CTF SEVEN THREE coordinates all logistics support in the Indian Ocean (except for air logistics, which is coordinated by Commander Fleet Air Western Pacific—COMFAIRWESTPAC Atsugi, Japan, and through a detachment located at Cubi Point, Philippines—COMFAIRWESTPAC DET). Once a Naval vessel moves into the operational area of the Indian Ocean Battle Group, it

becomes part of Commander Task Force SEVEN ZERO (CTF SEVEN ZERO). CTF SEVEN ZERO is the on-scene commander in charge of the Battle Group. The Battle Group, while on station, depends entirely on resupply through surface and air modes of transportation.

The key factor contributing to the difficulty of the resupply effort to the Indian Ocean is the sheer time and distance involved in moving material from the closest established full-service support point (NSD Subic); or if not available there, then from CONUS supply points to the units on station near the Persian Gulf (see Table I).

B. DIEGO GARCIA OPERATIONS

Diego Garcia is a British owned U-shaped atoll, thirteen miles long, and two to four miles wide used by the U.S. under an agreement made with Britain in 1966 to be used for defense purposes only. It has been built up to provide both air and surface logistics support to the Indian Ocean Battle Group. The island has become a key link in the logistics channel to the Indian Ocean because of its strategic location 3,085 NM west of the Philippines. It has upgraded facilities for fuel storage, deep draft anchorages, pier facilities for MLSF ships, and air landing facilities to handle the largest cargo aircraft in the Military Airlift Command's inventory, the C-5. As a logistics support activity, Diego Garcia acts as a receiving, segregating, staging, and transshipment point for



incoming, and on a lesser scale, outgoing cargo and personnel destined for the Battle Group. Cargo and personnel can be moved onward by either air or surface means. The cargo can be moved to the fleet via one of the three following methods:

- 1. Through US-3A Carrier On Deck Delivery (COD) aircraft, which is limited to small, high priority items or 3-5 passengers (this mode is controlled by COMFAIRWESTPAC);
- 2. Through twice-weekly C-141 MAC flights to Masirah Island, Oman (flights are controlled by MAC and COMFAIRWESTPAC) with the material offloaded and transshiped to various units (controlled by the on-station MLSF ship or on-station tender anchored within helo range of the island);
- 3. Through an MLSF ship which shuttles twice a month between Diego Garcia and the Battle Group on location in the Indian Ocean.

Cargo and personnel arrive in Diego Garcia via daily C-141 aircraft from Clark AFB, Philippines. In addition, fresh provisions are flown in twice a week from Singapore via C-141 aircraft. These provisions are then loaded out on the MLSF when it arrives, and delivered to the Battle Group. C-5's are capable of flying this distance as well and have been used in the past when the amount of cargo movement dictated. No other aircraft in the DOD inventory has the cargo capability and flight sustainability characteristics needed to fly the distances to Diego Garcia without requiring in-flight refueling. Surface cargo arrives on a monthly shuttle between NSD Subic and Diego Garcia through Military Sealift Command (MSC) ships.

A new reporting-on-station MLSF ship can also deliver cargo and personnel to Diego Garcia or deliver direct to the Battle

Group if it bypasses Diego Garcia. The cargo operations on Diego Garcia, both air and surface, are operated through a contracted civilian company. The surface cargo evolutions are monitored by the Supply Department on Diego Garcia, while the air cargo operations are monitored by a detachment of personnel who are provided by the Supply Department of the Battle Group carrier on station in the Indian Ocean. The detachment is designated as CTF SEVEN ZERO POINT ZERO DET (Detachment). [Ref. 2]

C. MASIRAH ISLAND, OMAN OPERATIONS

Masirah Island, Oman is a strategic island located near the northeast coast of Oman in the North Arabian Sea near the Strait of Hormuz, which is being used by the U.S. as the end point of the air logistics pipeline to the Indian Ocean Battle Group. On territory that was formerly used as a British airfield, the Sultan of Oman has granted the U.S. extremely limited temporary landing and unloading privileges. Cargo and personnel are allowed to be flown in after twelve o'clock noon, unloaded, and the cargo and personnel staged and flown out via MLSF helos to the Battle Group which is operating within 15 to 30 miles offshore. The evolution is allowed to take place only two days weekly, Tuesdays and Saturdays, with the entire evolution completed before sunset.

No cargo or personnel, with the exception of some material handling equipment, is allowed to remain overnight on the

island. No pier facilities exist to handle cargo via surface ship operations at Masirah.

III. MAJOR INDIAN OCEAN LOGISTICS PARTICIPANTS

A. MILITARY TRAFFIC MANAGEMENT COMMAND (MTMC)

MTMC is one of the three Department of Defense (DOD) single manager Transportation Operating Agencies (TOA), the other two agencies being the Military Airlift Command (MAC), and Military Sealift Command (MSC). MTMC has the responsibility for managing ocean terminal service and land transportation in the continental United States. MTMC differs from MAC and MSC in that MTMC does not operate its own complete transportation system but relies on commercial transportation assets.

MAC and MSC rely more on their own assets consisting of airplanes and ships. [Ref. 3]

MTMC is tasked with providing transportation services to DOD, their primary mission being to meet DOD's transportation needs in both times of war and peace. MTMC is the interface between defense shippers and commercial and defense carriers within the continental United States. MTMC determines how cargo moves by selecting the carrier within the continental United States. The mode of transportation selected is related to the Urgency of Need (UND) as determined by the end-user Supply Officer. What is to move, where it is to move, and the Transportation Priority Designator (TP) of the material, are the responsibility of the defense shipper and the sponsoring commands. MTMC deals with commercial carriers as well as MAC and MSC. Their primary interface with the

Indian Ocean logistics system is through the MTMC Western
Area (MTMCWA) office, located in Oakland, where clearance
authority for all cargo destined for overseas shipment must
be scheduled. This process is also known as booking. When
MTMC receives a request for commercial or military air transportation for material to move from within the continental
United States to an overseas area, the request will be referred to the appropriate Navy routing authority Transportation
Officer (TO) in the U.S., who will follow MTMC regulations and
determine the mode to be used whether it be shipped through
MAC, MSC, or through a commercial air carrier. [Ref. 4]

The ocean terminal that MTMC operates for shipment of surface cargo on the West Coast of the United States is located at Oakland, California. In addition to its own terminal, MTMC operates at commercially run facilities located at Seattle, Washington, and Long Beach, California; locations that are staffed by military personnel.

1. Responsibility for Transportation of Navy Materiel

The Naval Supply Systems Command is responsible for authorizing and controlling the transportation of Navy material through the MTMC stateside, single-manager commonuser terminals. Control of transportation within overseas areas is in accordance with joint Army, Navy, and Air Force regulations, as determined by theatre area commanders.

2. Designation of Transportation Officers (TO)

Transportation Officers (TO) act as agents of the government in the performance of movement of goods between

the carrier and the government. They initiate shipment and receive material for which the government pays the transportation charges. The term Transportation Officer (TO) applies to any individual performing traffic management functions at military activities regardless of whether or not that is the organizational title of the individual. [Ref. 5]

Also, any Naval activity that has a supply organization will have the senior Supply Corps officer designated as the Transportation Officer (TO). At those activities that do not have a Supply Corps officer assigned, the Commanding Officer will designate someone to act as the Transportation Officer (TO). By virtue of this, all Naval vessels will have an individual to perform transportation functions. The designation as a TO assigns the responsibility to exercise sound material movement management practices and to move all material at the most economical cost to the government consistent with the Urgency of Need (UND), Priority Designator (PD), Force Activity Designator (FAD), and the resultant Transportation Priority (TP) assigned. [Ref. 5]

3. Navy Materiel Transportation Offices (NAVMTO)

Organizationally, Naval Supply Systems Command
(NAVSUPSYSCOM) is responsible for authorizing and controlling
Navy cargo and personnel. The Deputy Commander for Transportation and Warehousing is responsible for exercising movement control over Navy material and for insuring that appropriate transportation service is provided for all Navy shipments.

Fulfillment of this mission of NAVSUPSYSCOM is handled primarily through the Navy Material Transportation Offices (NAVMTO), located in Norfolk, Virginia, and Oakland, California. The responsibility for granting the clearance authority and routing instructions required for Navy items authorized or requested to travel via air is the responsibility of NAVMTO. The general functions they provide include:

- a. Authorizing the movement of Navy material by air; challenging the validity of shipper determined airlift requirements in accordance with NAVSUPSYSCOM directives; arranging for the pickup and delivery from the aerial ports of embarkation and debarkation; diverting material between modes as necessary to meet the needs of the Navy at the lowest cost; providing for recoopering, redocumentation, repacking, and relabling as necessary to expedite the movement of Navy material in transit.
- b. Receiving, pricing, and coding transportation movement source documents and processing billing data submitted by DOD single manager agencies to the Navy; integrating, analyzing, and summarizing this data to provide Navywide transportation management information, reports and statistics.
- c. Providing technical assistance to Navy material shipping activities and terminals.
- d. Developing and maintaining a set of tariffs, schedules and routes.
- e. Providing technical direction, guidance, and assistance in material transportation matters to Navy commands, and shipping activities worldwide.
- f. Maintaining locater information on the fleet and providing appropriate information to shippers of material for Navy ships and mobile units by: arranging for the receipt, inspection, acceptance, marking, consolidation, and documentation of vendor supplied material delivered direct to air terminals for transshipment when not otherwise provided for; and providing tracing service for shipments moving within DOD transportation systems on an exception basis in response to urgent operational requirements. [Ref. 6]

4. Navy Overseas Air Cargo Terminals (NOACT)

The Navy Overseas Air Cargo Terminals (NOACT) manage the movement of Navy air freight from within assigned geographical areas of responsibility overseas which are located in the Western Pacific at: Clark Air Force Base, Luzon, Republic of the Philippines; Hickam Air Force Base, Honolulu, Hawaii; and Yokota Air Base, Yokota, Japan. Some of their general responsibilities are: to coordinate air cargo movement matters within their assigned area; monitor cargo between MAC aerial ports and receiving or shipping end-user units; provide movement information and expediting services; authorize the movement of Navy cargo by air transportation; divert material from airlift to surface land or ocean transportation and arrange for the transshipment; maintain fleet locater information to assure accurate and timely delivery of materiel; and maintain route and schedule information concerning the airlift. [Ref. 7]

5. Military Air Traffic Coordinating Offices (MATCO) MATCO's are organized and located to provide liaison and to control the flow of shipper service cargo and mail. They are located generally at the MAC air terminals. [Ref. 8]

6. Navy Overseas Air Routing Activities

The following activities in the Western Pacific area have been designated to authorize and issue routing orders on materiel originating in their respective areas which meet cargo criteria listed in Table II: African, Red Sea, Persian

TABLE II

AIR CARGO ELIGIBILITY CRITERIA

POLICY

- 1. GENERAL. The use of air transportation is authorized within budgetary limitations for:
 - a. items wherein military necessity overrides other considerations,
 - b. items wherein airlift can be justified on the basis of reduced overall cost to the Government,
 - c. business in the national interest when other forms of transport are unsuitable or unavailable.
- 2. GUIDELINES. To assist in meeting the objectives in this policy, appropriate air routing offices may authorize air transportation, for cargo within the following classifications:
 - repair parts required for emergency repairs to insure operational readiness;
 - b. emergency material urgently required for nonstock replenishment purposes;
 - c. technical spares not available from the mobile logistic support forces or overseas bases;
 - d. items essential to health and items required in relief of catastrophies;
 - e. critical items procured on an airlift pipeline basis after approval by the Joint Chiefs of Staff;
 - f. items to fulfill requirements deemed necessary by the Joint Chiefs of Staff as mandatory air movements;
 - g. items assigned material condition code B, C, D, E, H, or K, when determined to be in critical supply by the cognizant inventory manager.

COMMERCIAL AIR CARGO TRANSPORTATION

1. OVERSEAS AIR SHIPMENTS VIA COMMERCIAL FLIGHTS. When Navy material must move between points where no government air transport system operates or where the existing system is so limited that timely receipt of material at destination cannot be assured, commercial air systems may be employed, if available. Such shipments are

TABLE II (CONTINUED)

subject to the Navy Department and overseas area command policies, rules, regulations, and routing control procedures. Where service schedules and rates are comparable, American flag carriers will be given preference over foreign flag carriers. Otherwise, traffic will be distributed as equitably as possible among competing air carriers.

- 2. AUTHORITY DELEGATED TO TRANSPORTATION OFFICERS IN OVERSEAS AREAS. Shipments meeting the criteria as listed in the Air Cargo Eligibility Criteria section above, which originate in overseas areas, except Canada and Mexico, may be forwarded by Transportation Officers (TO) without prior referral to appropriate Navy Overseas Air Routing offices under the following conditions:
 - a. when origination in areas not specified in the Navy Overseas Air Routing Activities, via commercial air systems when the quantity shipped does not exceed 150 pounds or via government air systems, when available, without weight limitations.
 - b. when originating within areas near Navy Overseas
 Air Routing Activities but which are beyond the zone
 in which pickup service is performed, via commercial
 or government air systems when the quantity shipped
 does not exceed 150 pounds.

Source: NAVSUP MANUAL VOLUME V Para 55000-55001.

Gulf nations, and Arabian Sea areas--Commander Middle East

Forces; Hawaiian Islands--NOACT Hickam Air Force Base, Hawaii;

Guam--NSD Guam; Japan--NOACT Yokota, Japan; Philippines-
NSD Subic Bay. [Ref. 9]

7. Navy Sea Cargo Coordinators

Overseas, the Navy Sea Cargo Coordinators: obtain ocean transportation services for cargo that does not move by air; arrange for further shipments of cargo discharged at ports within their area; and arrange for documentation of Navy Cargo moving via non-Navy terminals. These offices are located in the Western Pacific in the following locations:

NSC Pearl Harbor, Hawaii; NSD Guam; NSD Yokosuka, Japan;

NSD Subic Bay, Philippines; and U.S. Naval Communication

Station, Harold E. Holt, Exmouth, Western Australia. [Ref. 10]

B. MILITARY AIRLIFT COMMAND (MAC)

MAC is the DOD's single manager Transportation Operating
Agency (TOA) for airlift services. They are responsible for
the movement of all cargo and personnel from time of acceptance
into their system until delivery at the MAC destination airport. This responsibility includes tracking, storage, terminal
facilities and special airlift requirements utilizing either
military or commercial assets as deemed necessary for the DOD
mission. MAC coordinates its operations through air terminals
located at the eleven western locations as shown in Table
III.

TABLE III

MILITARY AIRLIFT COMMAND (MAC) TERMINALS OF OPERATION

TERMINAL NAME	LOCATION	LOCATION CODE
Clark AB	Philippines	CRK
Cubi Point NAS	Philippines	CUA
Kadena AB	Okinawa	DNA
Hickam AB	Hawaii	HIK
Yokota AB	Japan	OKO
Osan AB	Korea	OSN
Travis AFB Anderson AFB	California	SUU
Diego Garcia	Guam	UAM
(BIOT)	Diego Garcia	NKW
Singapore INTL	Indonesia	TGA
Masirah	Oman	MRH

Source: (Department of the Air Force PACAF Pamphlet 76-1, 1 November 1985)

MAC is tasked with providing all DOD airlift service and primarily tasked for providing airlift for wartime deployment of U.S. forces. Their main interface with Indian Ocean logistics is through the 22ND Air Force located at Travis AFB California, where C-5's, C-141's, and C-130's are scheduled and flown throughout the Pacific, Western Pacific, and Indian Ocean area, carrying cargo and personnel.

For cargo to be moved, it must first have proper documentation which primarily consists of the necessary clearance authorization. Clearance authorization consists basically of approval from NAVMTO to allow the cargo to travel via air through MAC. Cargo must meet standards in accordance with DOD Regulation 4500.32R, Military Standard Transportation and Movement Procedures (MILSTAMP) or will not be allowed to enter the MAC system. This manual describes the procedures for material eligibility. The activities which determine approval for the movement of cargo for the NAVY are the Navy Material Transportation Offices (NAVMTO), located in Norfolk, Virginia, and Oakland, California. Table IV displays some of the MAC channels in use throughout the Western Pacific and Indian Ocean by average flying times.

C. MILITARY SEALIFT COMMAND (MSC)

MSC is tasked with delivering military cargo in war or in a nonmobilization contingency. In peacetime also, MSC is tasked with moving DOD cargo by sea. Historically, MSC has

TABLE IV

MAC CHANNELS TO THE INDIAN OCEAN LISTING BY DISTANCES AND AVERAGE FLYING TIMES FOR C-141 AIRCRAFT

AVERAGE FLYING TIMES AND DISTANCES (Hours + Minutes) (Distances in Air Miles)

Terminal:	CRK	CUA	DNA	HIK	OKO	OSN	SUU	UAM	NKW	TGA	MRH
CRK CLARK		+20 31	2+15 814	11+00 4670	4+15 1700	3+50 1510	15+25 6621	3+40 1428	8+00 3382	3+25 1343	3900 9+00
CUBI	+20 31		2+20 850	11+00 4700	4+20 1721	3+55 1 5 41	15+25 6642	3+45 1474	8+00 3351	3+25 1320	NA
DNA KADENA	2+15 814	2+20 850		9+45 4100	2+20 871	1+55 681	13+30 5792	5+15 1243	9+55 4204	5+20 2157	NA
HICKAM HIK	11+00 4670	11+00 4700	9+45 4100		8+15 3450	9+40 4105	5+20 2162	7+55 3331	18+55 8140	11+45 5013	NA
OKO YOKOTA	4+15 1700	4+20 1721	2+20 871	8+15 3450		1+50 655	11+31 4921	3+40 1410	12+55 5082	7+20 3043	NA
OSN OSAN	3+50 1510	3+55 1541	1+55 681	9+45 4105	1+50 655		13+00 5 576	4+25 1788	11+30 4892	6+50 2853	NA
SUU TRAVIS	15 +25 6621	15+25 6642	13+30 5792	5+20 2162	11+31 4921	13+00 5576			23+10 10003	18+30 7964	NA
UAM ANDERSON	3+40 1428	3+45 1474	5+15 1243	7+55 3331	3+40 1410	4+25 1788	12+00 5125		11+10 4709	6+35 2707	NA
NKW DIEGO G.	8+00 3382	8+00 3351	9+55 4204	18+55 8140	12+55 5082	11+30 4892	23+10 10003	11+10 4709		5+55 2461	4+20 1700
TGA SINGAPORE	3+25 1343	3+25 1320	5+20 2157	11+45 5013	7+20 3043	6+50 2853	18+30 7964	6+35 2707	5+55 2461		NA
MRH MASIRAH	9+00 3900	NA	NA	NA	NA	NA	NA	NA	4+20 1700	NA	

NA: Not available

NOTE: Flying times are from takeoff-to-touchdown and do not include ground time, crew time, weight restrictions/fuel tradeoffs.

Source: (Department of the Air Force PACAF Pamphlet 76-1, 1 November 1985)

had to rely to a great extent upon the commercial maritime industry to meet military requirements due to the shortfall in their carrying capcacities. MSC is an operating agency contained within DOD under the Secretary of the Navy. MSC ships are used to resupply the NSD's and Diego Garcia and provide support to fleet units.

D. MOBILE LOGISTICS SUPPORT FORCE (MLSF)

The MLSF is made up of U.S. Naval vessels whose task is to replenish and resupply the units of the fleet. They consist of oilers, ammunition ships, combat stores ships, and supply ships. One or more, usually an AFS, is assigned to remain with the Battle Group.

E. THE END-USER SUPPLY OFFICER

The Supply Officer onboard a vessel deployed to the Indian Ocean operates under extremely demanding conditions. He is tasked with ensuring that he has either, all the required material to support his unit's mission onboard, or has the ability to obtain shortages from supply sources which will deliver the needed material via an established, reliable, and efficient transportation channel. Following established Naval Supply procedures for requisitioning material, the Supply Officer has a standard by which he is aided in his task. This standard is the Uniform Materiel Movement and Issue Priority System (UMMIPS) instruction.

1. Transportation Information Currently Available to the End-user Supply Officer

Prior to deploying to the Western Pacific, the Supply Officer has the following publications available to assist him in this task as it pertains to transportation information.

a. NAVSUP P-485 (Afloat Supply Procedures)

This publication establishes the policies for the operation and management of afloat supply departments. designed to assist supply department personnel in understanding and performing their individual tasks associated with afloat supply operations. It is divided into six chapters covering: material identification; material procurement; material receipt, custody and stowage; material expenditure and shipment, and inventory management. Although P-485 discusses Priority Designators (PD), Force Activity Designators (FAD), Urgency of Need Designators (UND), and how to order material from a Naval Supply Center, no mention is made of the Transportation Priority Designators (TP), nor how the material will actually be sent to the end-user. It does mention that the Mobile Logistics Support Force (MLSF) is to be the first echelon of resupply. [Ref. 11] It goes on further to state that when an end-user does not hold a required item, and if the MLSF on-station does not hold the item, then the unit is to order from the nearest shore-based activity where the material may be stocked. This shore-based activity in this area of the world would be either the: Naval Supply Depot (NSD) Subic Bay, Philippines, or NSD Yokosuka, Japan (shore activities

are designated as the second echelon of resupply). This manual explains in great detail how a ship obtains the material it needs to operate efficiently by submission of requisitions to ashore supply activities, other vessels, or by purchasing direct from commercial sources. No mention is made of the mode of travel or route the material may take to arrive in accordance with the UMMIPS time standards. No mention is made of air freight forwarding nor transportation channels to the Indian Ocean as well.

b. Commander, Naval Surface Force U.S. Pacific Fleet Instruction 4400, 1E (Force Supply Manual)

This manual provides instructions and guidelines for supply operation of units belonging to the U.S. Pacific The Force Supply Manual does go into greater detail Fleet. concerning the procedures for ordering material while deployed and contains a checklist of supply actions to be accomplished prior to deploying. The transportation section which is listed merely describes the funding directions to be followed for miscellaneous supply actions, and nothing concerning transportation information. [Ref. 12] Instructions are given for the procurement of material in accordance with UMMIPS time standards and the Required Delivery Date (RDD) of the material depending upon the FAD state and location of the end-user [Ref. 13]. The only reference to the transportation channels which may be used for the movement of Navy material is stated:

QUICKTRANS and Military Airlift Command (MAC) air cargo delivery offers the quickest service to Subic Bay, R.P., Guam, and Japan. Do not request commercial air shipment

to these destinations as customs will complicate receiving and delay delivery. [Ref. 14]

No mention is made of air freight forwarding nor transportation channels to the Indian Ocean.

c. Commander Naval Surface Force, U.S. Pacific Fleet Deployment Guide for Supply Personnel

This guide contains useful general supply type local information for end-users deploying to the Western Pacific and Indian Ocean as well as various countries in those areas where port calls may be made. Recommended publications for reading are listed but none concern the transportation channels to be used to the Western Pacific nor Indian Ocean. Reference is made that "Air Mail is the best way to receive high priority material in the I.O. [Indian Ocean]. Avoid registered mail whenever possible, since that will be routed through Subic and forwarded via the AFS [MLSF ship]" [Ref. 15]. Reference is made in detail as to the almost non-utilized Air Deployment Delivery System (ADDS) which provides an air drop into the water from a specially chartered aircraft. It is a method whereby urgent material can be delivered to ships operating independently of the usual transportation channels. [Ref. 16] A section included by NAVMTO does mention air challenge message information. Air challenge is the program developed to determine whether material which is outside a specified weight or size criteria which if shipped, would cost a considerable amount of dollars or would displace other important cargo to be delivered. It is merely a system

developed to review the necessity for air shipment. [Ref. 17] Brief information concerning the role of NAVMTO, diversion of cargo, and transit times by various modes are also listed. [Ref. 18]

d. COMSEVENTHELT OPERATIONAL ORDERS (OPORDERS)

COMSEVENTHELT OPORD 201 addresses air shipment
of material to specific countries (Hong Kong, Philippines,
Singapore, and Thailand), and generally states that MAC
or commercial air could be used to move material, but to
expect customs delays. This info is more for the benefit
of ships which are visiting these countries and require the
material delivery while in-port. It states further air
logistic support for Surface Task Group Deployments:

will consist primarily of support provided by regularly scheduled commercial air flights to normal ports of call. Other available assets include . . . MAC. Arrangements for commercial air transportation can be made by request to CONUS supply activities, COMNAVSURFPAC or CTF SEVEN THREE. Early liaison with local embassies is necessary to prevent delays in passing material through customs and assuring ground transportation from the airport to the ship. [Ref. 19]

This OPORDER also mentions that there are:

Scheduled MAC channel flights to Diego Garcia: To achieve maximum material support from scheduled MAC flights to Diego Garcia, ensure early liaison (prior to departure) between CTG SEVEN ONE POINT THREE/CTU SEVEN ONE POINT THREE POINT THREE/CTU SEVEN THREE POINT ZERO POINT ONE in Subic Bay and NOACT Clark AB [Air Base] with info CTF 73. [Ref. 20]

A section of the Indian Ocean operations scenario states that "Air logistic support from CONUS to an I.O. operating area for an emergency requirement can take up to

15 days or longer once the item has entered the transportation system" [Ref. 21]. It also states that: "... some limited-to-extensive, logistic support will be required" [Ref. 22].

No mention is made of air freight forwarding nor transportation channels to the Indian Ocean.

e. Other Potential Sources of Transportation/Air Freight Forwarding Information

Pre-deployment information for transportation channel information concerning the Western Pacific and Indian Ocean for West Coast deploying ships are: recently returning ships Supply Officers, published "Lessons Learned" reports sent to COMNAVSURFPAC, and the pre-deployment briefing given by COMNAVSURFPAC. Not one of these sources mentions air freight forwarding nor transportation channels used to the Indian Ocean. It is stated that NAVMTO is to be kept informed at all times of the ship's schedule in order for NAVMTO to determine the ports that material will have to be sent to in order to reach the end-user. The Pre-Deployment briefing given by COMNAVSURFPAC emphasizes that adherence to procedures is the best policy to ensure that material arrives in accordance with UMMIPS time standards. [Ref. 23]

Another potential source of logistic channel information is CTF SEVEN THREE, the primary logistic agent in the Western Pacific and Indian Ocean, who briefly covers the basic methods used to move material to an end-user situated in the Indian Ocean, but does not provide schedules of the

MAC frequency channels nor instructions for use of air freight forwarding procedures. [Ref. 24] A detailed message listing the difficulties encountered in attempting to move urgently required material via commercial airlines is periodically updated and transmitted to the end-users by CTF SEVEN THREE as a logistic notice [Ref. 25]. This message discusses the routing and marking instructions required for commercial air shipment of Navy cargo to many ports in the Western Pacific and Indian Ocean. [Ref. 26] It goes on further to state:

Shipment via commercial air is often the most expeditious and cost effective means of delivering CASREP/NMCS/PMCS requirements, and other urgently required material. However, delays have been experienced in material reaching ultimate consignees via commercial air. These delays [in moving the material] have been attributed to:

- A. Unfamiliarity with host country customs procedures;
- B. Failure to provide U.S. military liaison personnel with advance information; or failure to request routing instructions;
- C. Failure to provide commercial airway bill number, flight number, piece/weight/cube data, and required delivery dates;
- D. Improper marking. The importance of providing the airway bill number and flight data to all activities concerned cannot be overemphasized. This information is the only means to track cargo through the commercial transportation system. [Ref. 27]

Numerous countries are listed in this logistics notice outlining the detailed procedures required of the end-user Supply Officer to receive urgently required material when using a commercial airline to move material. Mentioned only once (under the instructions required for delivery through Australia) is the following statement concerning air freight forwarding: "Some shipments have originated via

Burlington-Northern (CONUS) permitting direct billing for customs/delivery charges against original airway bill number, thus avoiding additional bills to ships" [Ref. 28].

Another potential source of transportation channel information and use guidelines for air freight forwarding is the expediting section of COMNAVSURFPAC, which is responsible for ensuring that urgently required material for West Coast ships under their control is given the highest priority in procuring, processing, shipping, and tracking material. In-depth knowledge of the transportation channels in use to the Indian Ocean and air freight forwarding information are not apparently known and are considered to be the responsibility of the expeditors at NSC Oakland and NAVMTO.

[Ref. 29]

IV. UNIFORM MATERIEL MOVEMENT AND ISSUE PRIORITY SYSTEM

A. GENERAL

The Uniform Materiel Movement and Issue Priority System (UMMIPS), is a system designed to ensure that materiel is provided to end-users in accordance with rules that take into account the military importance and Urgency of Need (UND) of the requesting activity in both war and peacetime. In the movement and issue of material, it is necessary to establish a common basis to determine the relative importance of competing demands for materiel resources, transportation sources and funds, warehousing, and requisition processing. The UMMIPS criteria have been established to provide a distinct advantage to deployed forces.

To satisfy these competing materiel requirements, it is necessary to identify the relative importance of demands not only for the materiel but also for other logistic system resources, such as transportation, warehousing, and paperwork processing. Urgent operational requirements must be given priority over requisitions for housekeeping and routine administrative supplies. UMMIPS is designed to give recognition and preferential treatment to materiel needs, the lack of which will prevent or seriously impair a command's ability to carry out its assigned mission.

An integral part of the Military Standard Requisitioning and Issue Procedures (MILSTRIP) is the requirement to assign

priorities in accordance with the standards as set forth in the UMMIPS instruction. UMMIPS provides a basis for expressing the rankings of requisitions and material movement transactions by a series of two-digit codes known as Priority Designators (PD). UMMIPS also establishes the time standards to be considered as the overall logistics system standards for the supply of material requirements. Transportation systems are to be designed to meet and where economically feasible, to surpass these time standards. Table V illustrates the current DOD UMMIPS established time standards for receipt of an item from requisitioning to receipt onboard. The times established in the tables, it should be noted, are average times only. [Ref. 30]

B. PRIORITY DESIGNATORS (PD) -- OR ISSUE GROUP PRIORITY DESIGNATORS

The priority designator (PD) provides a means of ranking competing demands and forms the basis for expressing the urgency of a requirement. The PD is also known as the issue group priority designator. The PD is an assigned number which ranges from a high of 01 to a low of 20. The PD assigned by an end-user to a requisition determines the time frame that the supply and transportation systems will respond to in order to process and deliver the item. In general, the PD that is assigned by the end-user for material or services will be determined by the Force Activity Designator (FAD) under which the unit is operating (or normally directed by

TABLE V

UMMIPS TIME STANDARDS

09 - 1528 TIME STANDARD FOR PRIORITY DESIGNATORS 09 - 15(TP-3)13 α (TP-2)04 - 08**4** (in calendar days) 01 - 03(TP-1)Priority Passing Action/Availability Determination/Depot-Storage Transportation Hold and Requisition Submission

/Delivery:***	
Shipment/	
Overseas	
D.	

13

13

**9

**8

	L.	l. To Alaska, Hawaii, North			
	A	Atlantic, Northern Europe,			
	S	aribbean or Central			
	A	America	4 * *	4 * *	38
2	2. T	2. To South America or West			
	M	Mediterranean	4 * *	4 * *	4
(*)	3. T	3. To East Mediterranean			
	0	or Africa	4 * *	×*	2(

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35

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or Africa

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CONUS Intransit to CONUS

Site Processing

A.

В.

Requisitioner, Canada,

or to POE

TABLE V (CONTINUED)

TIME STANDARD FOR PRIORITY DESIGNATORS (in calendar days)

	2	3) *
	09-1	(TP-3
	09-15	(TP-3)
	04-08	(TP-2)
ar days)	01-03	(TP-1)
(III Carellaar	Priority	

- **5 To Far East, Southeast Asia, or Australia 4.
- 5** 5** 62 4** 4** 67

52

47

5. To Middle East (Persian Gulf, Red Sea)

Receipt Take-up by

. 口 Requisitioner

1 1

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For use only when shipments are consolidated at origin into SEAVAN containers.

granted by JCS or the cognizant CINC, (2) a specific authorization is provided by the requisitioner, or (3) the characteristics of the material surface movement only when: (1) a temporary, blanket authorization is Time Standards for Priority Designators 09-15 apply when diverted to preclude air movement due to size, weight, or hazard classification. surface moevement. High Priority requisitions will be diverted to **NOTE:

Includes Point of Embarkation (POE) hold time, loading, transit, unloading, Point od Debarkation (POD) hold time and delivery to consignee. ***NOTE:

NAC UMMIPS Time Standards (Pacific): TP-1: 5 days; TP-2:

Source: (OPNAVINST 4614.1F)

the Force Type Commander) and the end-user's determination of the Urgency of Need designator (UND). The PD is derived from a matrix combining the end-user's Force Activity Designator (FAD) and the Urgency of Need (UND) of the item. [Ref. 31]

C. FORCE ACTIVITY DESIGNATORS (FAD)

The Force Activity Designator (FAD) is a Roman numeral, I through V, with I having the highest priority and V the lowest assigned by the Secretary of Defense, the Joint Chiefs of Staff (JCS), or by a DOD component which indicates the mission essentiality of a unit with respect to national objectives. A FAD identifies and categorizes a force or activity on the basis of its military importance. Circumstances in the world and location of a unit dictate what particular FAD is assigned to a unit. The FAD categories are listed in Table VI. In general, a unit that is deployed to the Indian Ocean will be assigned FAD II. [Ref. 32]

D. URGENCY OF NEED DESIGNATORS (UND)

The Urgency of Need designators (UND) are indicated by the letters A, B, or C, (with A having the highest priority and C the lowest), and indicate the relative Urgency of Need for a requirement of an item by a unit. The basic criteria and guidance for a unit to determine the UND and to select the proper PD that reflects the relative importance of the requirement are shown in Table VII. In general, requirements categorized as UND A are immediate requirements. Non-receipt

TABLE VI

FORCE ACTIVITY DESIGNATORS (FAD)

- 1. GENERAL. Force Activity Designators (FAD) are assigned as indicated below. This listing is an abbreviated one and the source should be referred to for a complete listing.
 - a. FAD I. Assigned to U.S. forces in combat and other United States or foreign country forces or activities designated by the Secretary of Defense as recommended by the JCS. FAD I will be used in peacetime only when:
 - programs have been approved for national priority by the President,
 - declared emergencies,
 - 3. units or projects specifically designated by the Secretary of Defense as recommended by the JCS.
 - b. FAD II. Assigned to:
 - 1. U.S. combat, combat ready, and direct combat support forces deployed to or operating from areas outside the 50 states and adjacent waters, Panama, and such other areas as may be designated by the JCS,
 - forces being maintained in a state of combat readiness for immediate (within 24 hours) deployment.
 - c. FAD III. Assigned to:
 - all other U.S. combat ready and direct combat support forces outside CONUS not included under FAD II,
 - those CONUS forces being maintained in a state of combat readiness for deployment to combat prior to D+30 days,
 - specified combat ready and direct combat support forces of foreign countries so designated by the JCS.
 - d. FAD IV. Assigned to:
 - 1. U.S. forces being maintained in a state of combat readiness for deployment to combat during the period D+30 to D+90 days,
 - 2. specified combat ready and direct combat support forces of foreign countries so designated by the JCS.
 - e. FAD V. Assigned to:
 - all other U.S. forces or activities including staff, administrative, and base supply type activities;
 - 2. approved proved programs of DOD components and Federal Agencies not otherwise designated.

TABLE VI (CONTINUED)

2. ASSUMING A HIGHER FAD. In order to facilitate optimum materiel readiness, the authorized higher FAD may be assumed a maximum of 90 days prior to scheduled deployment outside CONUS or other authorized elevation from a lower to higher FAD.

Source: (OPNAVINST 4614.1F, 15 April 1983)

TABLE VII

URGENCY OF NEED DESIGNATORS (UND)

1. GENERAL. The following table of UND criteria is prescribed for use by deployed ships when material is required for self support. If material is required for direct support of other ships, the FAD and UND applicable to the supported ship will be used in determining a requisitioning Priority Designator (PD). This list is a general listing and the source should be referred to for a more complete listing.

UND

DEFINITION

- A 1. Emergency requirements for weapons, equipment, or material for immediate use without which the ship concerned is unable to perform assigned primary operational missions, such as C-3/C-4 CASREPS.
 - 2. Material required to eliminate work stoppage on controlling jobs in the repair department of a tender or repair ship manufacturing, modifying, or repairing C-3 or C-4 CASREPS for primary replacement components and repair parts for the unserviceable components that are not simultaneously ordered.
 - 3. CASREPS. Authorized UND A for C-2, C-3, and C-4 CASREP requirements.
 - 4. Required to preclude an imminent work stoppage or C-3 or C-4 CASREP when undertaking planned maintenance on equipment essential to primary mission performance when the work stoppage or C-3 or C-4 CASREP will occur within 20 days for ships overseas.
- B. 1. Replenishment of stocked COSAL or other allowance/ load list material required for support of mission essential equipment, when the last item has been issued to use or the quantity onboard is less than the minimum replacement unit.
 - 2. Required to preclude anticipated work stoppage or C-2 CASREP when undertaking planned maintenance on essential equipment. The work stoppage is anticipated within 20 days for ships overseas.
 - 3. Initial order of allowance list material for deployed forces due to allowance changes or installation of new equipment.

TABLE VII (CONTINUED)

UND

DEFINITION

- C 1. Routine stock replenishment and routine requirements other than previously prescribed.
 - 2. Material required for end use to repair or replace and make ready for sea collateral or administrative system equipment or systems not immediately essential to the effectiveness of the ship.

Source: (NAVSUP P-485 SUPPLY AFLOAT, para 3047)

of an UND A item would disable one of the primary missions of the unit. Non-receipt of an UND B item would impair one of the unit's primary missions, while UND C designations are reserved for routine items <u>not</u> of an immediate nature. The selection of an appropriate PD results from the end-user utilizing the matrix of UND's and FAD's as shown on Table VIII. [Ref. 33]

E. TRANSPORTATION PRIORITY DESIGNATORS (TP)

The Transportation Priority Designator System (TP) is designed to move material based on the relative Urgency of Need for the material as determined by the end-user Supply Officer. Transportation Priorities (TP) have been assigned by classes in the following order:

- 1. TPl is assigned to material which has been assigned a priority designator (PD) of 01 through 03. High speed transportation will be considered the normal means of transporting this material.
- 2. TP2 is assigned to material which has been assigned a priority designator (PD) of 04 through 08. High speed transportation will be considered the normal means of transporting this material.
- 3. TP3 is assigned to material which has been assigned a priority designator (PD) of 09 through 15. High speed transportation will be considered the normal means of transporting this material when it is the only means available to achieve delivery on or before the required delivery date.
- 4. TP4 is assigned to material which has been assigned a priority designator (PD) of 16 through 20 and will not normally be considered eligible for high speed transportation. [Ref. 34]

TABLE VIII

FORCE ACTIVITY DESIGNATORS (FAD), PRIORITY DESIGNATORS (PD), AND URGENCY OF NEED (UND) MATRIX

URGENCY OF NEED DESIGNATOR DESIGNATOR (UND)

A*	B*	C*

FORCE/ACTIVITY DESIGNATOR (FAD)	RESULTS IN A PRIORITY DESIGNATOR (PD) OF	:
I	01 04 11	
II	02 05 12	
III	03 06 13	
IV	07 09 14	
V	08 10 15	

*NOTE: A--unable to perform

B--Performance impaired

C--Routine

Source: (OPNAVINST 4614.1F, 15 April 1983)

F. TRANSPORTATION EXAMPLE

The average time standards listed in Table V illustrate that if a priority 02 requisition ordered by a unit from the Indian Ocean and sent to the nearest NSD (Subic in this case) is not available there, and is then passed on to NSC Oakland, filled and delivered to the requesting unit, the item would be received in nine days. This breaks down to five days submission and processing time and four days travel time. In contrast to these standards, the following average travel times are being shown by the transportation channel via MAC. This example assumes that an item requrested was not available from the MLSF, other Battle Group assets, nor NSD Subic:

- a. From Travis AFB to Clark AFB: 6.8 days
- b. From Clark AFB to Diego Garcia: 2.2 days
- c. From Diego Garcia to Masirah: 1.0 days*
- d. Total elapsed time (travel only): 10.0 days [Ref. 35]

The 10 day travel time is already in excess of the prescribed UMMIPS standards by six days. Total requisitioning time from requisition-submission-to-receipt in this case is 15 days (six days over the standard). This example assumes that the material arrives in time to make the Tuesday scheduled run to Masirah; if it arrives on Saturday after the run to Masirah, the item will wind up arriving late by an

Allows for an <u>exact</u> arrival in Diego Garcia from Clark to meet a departing flight on a Tuesday or Saturday to Masirah; the item is then delivered to the end user the same day from Masirah

additional five days for a total requisitioning-to-receipt time of 20 days or 11 days over the prescribed standards. For comparison, the commercial flight time from San Francisco to Manila, with connecting ground transportation to Subic, is listed as 18 hours.

Adding to the end user's difficulty in determining when an item ordered may arrive is the scarcity of information available from a single source illustrating the interface of the Indian Ocean transportation channels. This information is available on a piecemeal basis, from each particular participant in the Indian Ocean transportation system. Each logistic participant must be queried in order to determine its schedules, limitations, and guidelines in order to draw conclusions as to the degree of interface needed to effect a successful request for material which is required within a certain time frame.

G. MILITARY POLICY ON OVERSEAS AIR SHIPMENTS

In general, the use of air transportation for the movement of air cargo is authorized for the following:

- 1. Items for which military necessity overrides other considerations.
- 2. Items for which airlift can be justified on the basis of reduced overall cost to the government.
- 3. Business in the national interest when other forms of transport are unsuitable or not available. [Ref. 36]

The Navy objectives for the use of air transportation for the movement of material are:

- 1. To provide fast and effective emergency and technical support to deployed units in order to maintain a high condition of readiness at the most economical cost.
- 2. To provide urgent support for high priority research and development programs of the Navy when other modes of transportation are not satisfactory.
- 3. To establish airlift as an integral part of the transportation system in providing logistic support to deployed operating forces in times of emergency.
- 4. To reduce the amount of materials required in the transportation pipeline and storage requirements in order to conserve critical stocks, to provide for more economical operations, and to insure better utilization of such items. [Ref. 37]

Air routing offices (NAVMTO offices in the U.S.) can authorize air transportation for materiel that falls within the following categories:

- 1. Repair parts required for emergency repairs to maintain operational readiness.
- 2. Emergency materiel urgently required for non stock replenishment purposes.
- Technical spares not available from the MLSF or overseas bases.
- 4. Items essential to health and items required in relief of catastrophes.
- 5. Critical items procured on an airlift pipeline basis after approval by the Joint Chiefs of Staff (JCS).
- 6. Items to fulfill requirements deemed necessary by the JCS as mandatory air movement.
- 7. Items assigned material condition code B, C, D, E, H, or K when determined to be in critical supply by the cognizant inventory manager. These are basically Mandatory Turn-in Repairable (MTR) items which are in a condition that requires shipment to a repair facility to bring them back to a fully operational condition. [Ref. 38]

When it is determined that Navy material is required to be moved between points where no government air transport

system operates, or where the existing system is so limited that timely receipt of material at destination cannot be assured, then commercial air systems may be employed, if available. These shipments are always subject to Navy, and overseas routing control procedures. American flag carriers will be given preference over foreign flag carriers where service schedules and rates are comparable, then materiel movement will be distributed as equitably as possible among the competing air carriers.

There are differences for routing procedures depending upon where material is originating, whether in CONUS or overseas as explained below.

1. Shipments Originating in the United States

Navy materiel must meet the criteria as shown in Table II and have an Urgency of Need (UND) that justifies a Transportation Priority Designator of TP1 or TP2 to make it eligible for movement via air to a point overseas from the United States. NAVMTO Oakland will be the office designating the clearance authority allowing the material to move by air.

2. Shipments Originating Outside the United States

In general, material which meets the criteria as shown in Table II requiring movement from points in Alaska, Hawaii, and outside the United States will be granted clearance authority by the appropriate Naval routing authority. Materiel originating in Mexico and Canada will be routed by NAVMTO Oakland.

3. <u>Authority Delegated to Transportation Officers in Overseas Areas</u>

Materiel which meets the criteria as shown in Table

II which originate in overseas areas <u>may</u> be forwarded by

Transportation Officers (TO) <u>without</u> prior approval from the appropriate Naval Air Routing Authority office under the following conditions:

- a. When originating in areas <u>not</u> specifically listed within Naval Air Routing Authority areas, via commercial air systems when the quantity shipped <u>does not</u> exceed 150 pounds or via government air (when available), <u>without</u> weight limitations.
- b. When originating within areas listed in Naval Air Routing Authority areas, but which are beyond pickup service zones that are not allowed.

4. Information Required by Navy Routing Offices

The following information will be supplied by the end-user when requesting routine instructions from Navy air routing offices:

- a. Transportation Accounting Code (TAC) and the commodity,
- b. Exact date of availability for shipment,
- c. The requisition number,
- d. Shipper and point of origin,
- e. Consignee and destination,
- f. Number of pieces, specifying the container type,
- g. Total gross weight of shipment,
- h. Total cube measurement,
- i. Three dimensions and weight of heaviest piece,
- j. Request priority, date material required, and concise but specific justification for urgency of shipment,

- k. Assigned bill of lading or DD Form 1384,
- Special circumstances, such as security classification, or other unusual conditions relative to size, handling, or value. [Ref. 39]

V. INTERNATIONAL AIR FREIGHT CHANNELS

A. AIR FREIGHT FORWARDERS

Material can be flown almost anywhere in the world today via commercial airlines and arrive within one to three days. However, each individual country as well as airlines have rules and regulations which control the entry and exist of material, influencing the time of material movement and thus causing possible delay. Customs clearances often cause long time delays and fall in this category. Delivery time, or service time, for cargo is generally more sensitive than cost for cargo movement. Critical time frames established for material receipt, when delayed, can be costly, and in the case of the Navy, it is extremely difficult to measure the cost of the delay to a mission of a ship while on deployment. Most nations have established bilateral agreements to determine the extent of regulations to transfer freight between the countries involved.

The air freight forwarder is a type of material mover who provides a service to consolidate freight and move it via the airlines. The air freight forwarder usually does not own airplane assets, although it may. Instead it buys transportation, either air time or cargo space, from an airlines and ships the material. The air freight forwarder makes his profit from charging the shipping customer a higher price than

his cost to the airlines for the bulk space or time that he purchases for the shipment of the material. Air freight forwarders can also receive revenue from the airlines by finding cargo as freight agents for the airlines. The air freight forwarders tend to think in terms of the total transportation system, door-to-door service concept, more than as an individual transportation method such as trucking, shipping, or airlines, and have begun to establish world-wide contacts needed to make the systems function. This is of extreme value to the Navy because of its world-wide presence, particularly in the Indian Ocean and the existence of relatively few bases to resupply its ships in that part of the world. The Navy depends on the air mode of transportation for the timely receipt of materiel.

Action in Congress during 1977 resulted in legislation which forced the Civil Aeronautics Board (CAB) to end regulation of the air freight forwarding business. The regulations had previously somewhat limited the number of entrants in the business. This deregulation of the airline industry has enabled more interested parties to enter the airline and air freight forwarding business. One of the results of deregulation has been increased competition among air carriers and air freight forwarders. This competition has subsequently resulted in service time improvements and price reductions throughout the industry as more and more companies enter the air freight business.

B. BURLINGTON NORTHERN AIR FREIGHT, INC.

One of the freight forwarders, Burlington Northern Air Freight, Inc., an international air freight forwarder, has been in business with the Navy on the West Coast of the United States since 1981, through a Service Agreement type of arrangement (Appendix A) with the Navy Material Transportation Office (NAVMTO). Basically, the agreement states that Burlington Northern will provide for the receipt, pickup, consolidation, documentation and transshipment of Navy material via military and commercial air, motor, and ocean carriers from the San Francisco Bay Area to destinations in the Pacific Area. Although the material specified to be handled is Navy material which consists of National Stock Numbered, NSN, and non-NSN items, the agreement was originally intended to move commercial contractor material, non-National Stock Numbered, NSN, items. However, General Service Administration (GSA), and Depot Level Repairables (DLR), which do have NSN's are moving via Burlington Northern. On occasion, high priority cargo (TP1) which have had an UND A classification and could not be dropped into the MAC system to meet a critical deadline have been shipped via Burlington Northern, because the flight arrangements that Burlington Northern could make would meet deadlines. [Ref. 40]

Burlington Northern is typical of the air freight forwarders who, on the international scene recognize that there is a market for shipment of material requiring expeditious handling,

and who have acquired the services of agents in countries around the world. These agents are positioned in every country in the free world, representing over 60 countries. They perform the following tasks in order to expedite the movement of material: customs clearance, material tracking, expediting warehousing, packing, crating, and distribution.

1. Burlington Northern Service Times

Part of Burlington Northern's Service Agreement with NAVMTO, requires the booking of all TPl and TP2 cargo with a commercial airline or through MAC, as designated by NAVMTO, and delivering such cargo to the airlines for final delivery to the ultimate consignee. It must also arrange for foreign customs clearance when required. TP3 cargo is normally to be sent via surface in accordance with the agreement. [Ref. 41] However, Burlington Northern ships cargo according to the following guidelines:

- TPl ... Always air to TPl location of ship
- TP2 ... Always air to TP1 location of ship
- TP3 ... Always air to TP1 location of ship unless NAVMTO designates a TP3 location. When in doubt, they ship via air.

If no TP number is displayed, Burlington moves the cargo as if it were TPl. In summary, they state that "virtually all freight for ships and mobile units will go air (TPl). Only if it has a TP3 number on it and we have a TP3 surface location will we send it surface" [Ref. 42]. Burlington feels that routing ships freight is an extremely critical

aspect of their function and that misrouting material can cause major repercussions throughout the Navy.

Burlington Northern's booking schedule is as follows (subject to change based on amount of cargo):

GUAM: Three times per week (MON-WED-FRI)

HAWAII: Three times per week (MON-WED-FRI)

MANILA: Four times per week (MON-WED-THU-FRI)

TOKYO: Four times per week (MON-WED-THU-FRI)

The flying times from San Francisco to: Manila via
Tokyo using one of the carriers that Burlington Northern uses
(Northwest Orient) is 18 1/2 hours; Guam 19 1/2 hours; Hawaii
5 1/2 hours; and Tokyo 11 hours. [Ref. 43]

VI. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. SUMMARY

While it is not fully the responsibility of the end-user Supply Officer to determine how material is to reach him, it is his responsibility to ensure that the material arrives. His assessment of material delivery times is guided by the UMMIPS time standards. If these time standards do not reflect accurate delivery time information, then the Supply Officer can not perform his job as well as he could. Merely relying on the UMMIPS time standards to foretell when material is expected to arrive is not sufficient. Knowledge of the transportation system and channels in use to move material are required in order for the end-user Supply Officer to make a choice, or to request a particular method for shipment of his material. Outside of CASREP required material, which receives intensive routing and delivery attention, the enduser Supply Officer should be able to request air freight forwarding when deemed necessary. A basic understanding of available transportation systems in use to move material to the end-user in the Indian Ocean should be a major requirement. The end-user Supply Officer can make use of this knowledge to remain informed as to the possible route his material will take, the actual delivery time for it, and to recommend potential improvements to the system. He is in a position to make

valuable comments on the most effective means of ordering and receiving material while stationed at the end of this extremely long transportation channel.

When it is determined that a standard NSN item is needed and is not available from the MLSF, and the UND dictates TPl, TP2, or even TP3, a message requisition is submitted to the nearest NSD. At the same time, an associated message could be sent (referring to the requisitioned item) requesting air freight forwarding to be used if the item is not available at the nearest NSD. If the requisition has to be passed back to NSC Pearl Harbor or NSC Oakland, then NAVMTO and Burlington Northern could be made info addees on this message to alert them of the request for air freight forwarding.

When it is determined that a non-standard (non-NSN) item is needed, the request for air freight forwarding could be placed in the initial message requesting the item. The request should inform NAVMTO and Burlington Northern to alert them of the request for the item to be shipped air freight.

It is understood that not all items that are TP1, TP2, or TP3 eligible should be air freight forwarded. Requests should be limited to those times that are deemed essential.

Since the end-user Supply Officer is also designated a Transportation Officer (TO) by NAVSUP directives and authorized to request commercial air shipment by COMSEVENTHFLT OPORDERS, he should have the flexibility to request air freight forwarding if it is faster than MAC. The decision to use

air freight forwarding to move material should be made only after it has been determined that movement by surface or MAC will not meet the UMMIPS time standards or the Required Delivery Date (RDD).

B. CONCLUSIONS AND RECOMMENDATIONS

Mention is made that commercial air shipments, when arranged individually by an end-user Supply Officer, are complicated by delays in customs, etc. International air freight forwarders, such as Burlington Northern have techniques already in place to eliminate or avoid these delays. They perform, day-in-and-day-out, with the commercial business world, so advantage of this capability should be utilized.

The use of Burlington Northern, or any other international air freight forwarder, minimizes the need for complex arrangements by the end-user Supply Officer to clear material for delivery to him. Burlington Northern and others already have the systems and procedures in place and operating.

Pre-Deployment briefings by both COMNAVSURFPAC and CTF SEVEN THREE need to mention the transportation channels in use to the Indian Ocean and the use of air freight forwarding to move material to the end-user Supply Officer who is deployed to that area.

The end-user Supply Officer needs to be made more aware of the transporation channels and the use of air freight forwarding to move material to him.

The Afloat Supply Manual (P-485), COMNAVSURFPAC FORCE
SUPPLY MANUAL, COMNAVSURFPAC PRE-DEPLOYMENT GUIDE, COMSEVENTHFLT,
CTF SEVEN THREE, and CTF SEVEN ZERO POINT ZERO OPORDERS,
should be updated to inform the end-user Supply Officer of the
transportation channels and air freight forwarding services
which describe how material might be routed to him.

Possible further study could be performed to determine the correct mix of Navy material that should be considered for movement via air freight forwarders to ships in the Indian Ocean. Determination of alternate interface networks between MAC and an air freight forwarder which can meet the UMMIPS time standards would also have merit.

APPENDIX

TRANSPORTATION OFFICE AND BURLINGTON NORTHERN AIR FREIGHT

- I. This Agreement, executed on the 19th of June 1981 between the Navy Material Transportation Office, hereafter referred to as NAVMTO, and Burlington Northern Air Freight, hereafter referred to as Agent, provides for the receipt, pickup, assembly/consolidation, documentation and transshipment of Navy material via military and commercial air/motor/ocean carriers from San Francisco Bay Area to destinations in the Pacific Ocean Area (POA) and to specific military installations or other destinations in CONUS.
- II. <u>SERVICES TO BE PROVIDED</u>. The Agent agrees to provide services as specified below:
- A. Material shall be picked up from the various NSCO locations, including NAS Alameda, daily utilizing Agent furnished equipment. Cargo shall be delivered to Agent's terminal daily.
- B. Agent shall containerize all shipments as required by NAVMTO.
 - C. The Agent shall:
- provide inland Conus routing instructions to vendors according to NAVMTO direction and policy,

- 2. instruct vendors to divert shipments as directed by NAVMTO to MOTBA or other CONUS ports of embarkation, including Travis AFB, for QUICKTRANS, MAC or CONTRUCK delivery.
- 3. provide regular service under this agreement at Agent's terminal during normal working hours Monday through Friday 0800-2400; Saturday 0800-1700. In addition, when and as required, Agent agrees to provide extra office shift coverage (as defined below) will be provided on a non-work day basis; example Sundays and Federal Holidays.
- D. Agent shall provide extra office shift coverage as follows:
- 1. Coverage by a person capable of performing the services assigned by an air consolidator, to include receiving cargo over the counter, documentation of shipments, booking, expediting, status of flights, specific shipments, and when requested, to arrange for the physical movement of cargo.
- 2. Upon notification by the Duty Officer, (NSC Oakland), prepare documentation for emergency shipments after duty hours.
- E. Agent shall provide a computer terminal and printer capable of producing OCR scannable messages. Software must also be developed and paid for by the Agent. Systems analysis and flow charts will be provided by NAVMTO to assist in controlling the flow of Government material.

III. RESPONSIBILITIES.

A. NAVMTO:

- 1. shall supply the Agent with pre-signed skeletonized Government Bills of Lading to be used for transshipment
 of cargo to POA and CONUS destinations.
- 2. shall supply Agent with blank Government documents as are necessary for the successful transshipment of cargo.
- 3. shall request Navy purchasing offices to supply Agent with a copy to each purchase order in which Agent is designated transshipment responsibility.

B. AGENT:

- 1. shall complete and/or prepare all shipping documents. Normally, information required for preparation will be available to Agent from 1348-1's, purchase orders, shipping labels or container markings applicable to each shipment.
- 2. shall book the TPl and TP2 cargo with a commercial airline of MAC (as designated by NAVMTO) and deliver containerized cargo to the airline in conformance with validated booking.
- 3. shall arrange for foreign customs clearance (as appropriate) and delivery of air cargo from the destination air terminal to ultimate consignee as directed by NAVMTO.
- 4. shall provide fibreboard containers at Agent's cost with the Government having the option to buy or furnish from its stock.
- 5. shall be responsible for the performance of packing/packaging and restricted articles certification, as required,

from information contained in 1348-1's or purchase orders.

Compliance with IATA, CFR 49, AFR 71-4 or IMCO is required as appropriate. Reimbursement of costs to Agent will be actual cost (supported by invoice).

- 6. shall remove excess dunnage from incoming shipments to facilitate containerization and reduce air freight
 charges. Such dunnage will include pallets, excess exterior
 packing, straps, etc.
- 7. shall send to NAVMTO on each work day a copy of shipping documents within 12 hours after delivery of cargo to and receipt by the carrier. All yellow copies of GBL will be returned to NAVMTO.
- 8. shall telephone cognizant component of NAVMTO not later than 1600 hours Pacific Time daily and provide a report of shipment of all material shipped, identified by TCN.

 Exceptions: Guam-morning after shipment, Oakland-morning of shipment, Norfolk-as shipment occurs.
- 9. shall prepare and transmit to NAVMTO a daily log of incoming vendor calls indicating the name of vendor, shipment point or origin, pieces, weight and cube, and the name of the inland carrier selected or designated to transport the material to the Agent or other designated point.

 All shipments which fall within the Navy Challenge Program, i.e., weight, cube, requisition date, or transportation costs, will be referred to NAVMTO for routing instructions.

- 10. shall prepare and transmit to NAVMTO by 1500 daily, a log of shipments received at their facility. NSC Oakland shipments are exempt from this requirement.
- 11. shall prepare and transmit to NAVMTO a listing
 of all shipments (Packing List) made to each destination, by
 1500 daily.
- 12. shall unfrustrate shipments by obtaining a transportation control number in a timely manner to include, if required, calling the vendor.
- 13. shall maintain records for complete line item traceability and financial accountability. The following documentation is required to be produced, transmitted and/or held by the Agent.
- a. Packing List by individual line item shall be transmitted daily to NAVMTO Rep, MTMCWA, Oakland. Elements of the list will include:
 - airbill/bill of lading number,
 - (2) date shipped,
 - (3) type of containers,
 - (4) container number (when applicable)
 - (5) tare weight,
 - (6) GBL numbers,
 - (7) destination airport/distribution point,
 - (8) flight/truck number,
 - (9) pieces,
 - (10) weight,

- (11) cube,
- (12) TCN numbers,
- (13) consignee, and
- (14) TAC number.
- b. Complete GBL data elements will include container TCN's as indicated on respective packing lists.
- c. Proof of overseas delivery via commercial air will be passed to NAVMTO Rep, Oadkland within 48 hours after overseas delivery.
- 14. shall consolidate, document on DD 1384 (TCMD), prelodge and deliver TP3 cargo to MOTBA for subsequent surface transportation to POA.
- IV. <u>LIABILITY</u>. The terms and conditions which govern Government Bills of Lading shall also govern this agreement.

V. RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE.

A. The Government will receive unlimited rights within DOD in computer software reasonably required to be originated or developed under this service agreement, or generated as a necessary part of performing this agreement. The Government will receive a copy of all documentation relating to Agent furnished software and enhancement thereto. This documentation will include, but is not limited to, detailed system specifications including: input/output formats, general program specifications, system data flow and related general information. The Agent will review the documentation furnished to the

Government twice each contract year in order to ensure that all software changes/enhancements have been furnished to the Government.

VI. BILLINGS.

- A. Shipments via Commercial Air. All terminal services, i.e., pickup, delivery, assembly/consolidation and documentation, will be advanced to commercial air carriers on the Airwaybill identified as "Terminal Transfer" charges. It is further understood that pickup and delivery charges will be those published in tariffs lawfully on file with the appropriate regulatory body and will also be advanced by commercial air carriers on the Airwaybill identified as "Cartage" charges. Terminal transfer charges will be those indicated in attached Appendix A. [NOT ATTACHED] The Airwaybill will be supplemented by an Agent invoice listing the terminal transfer charges by each item. Pickup from NSC Oakland and NAS Alameda will not be individually billed but included in line 1 of Appendix A [NOT ATTACHED].
- B. Handling costs for shipments moved via MAC or surface will be billed on Public Voucher Form 1034.
- C. Military Facilities. Agent will prepare TCMD's for shipments routed via MSC, MAC, QUICKTRANS or CONTRUCK.
- 1. Shipments to Travis AFB will be routed via facilities of Navy contract carrier or as otherwise authorized by NAVMTO.

2. Intra-state California shipments will be routed as directed by NAVMTO.

VII. TERMS OF AGREEMENT.

Services under this Agreement will commence 1 July 1981. This Agreement may be terminated by either party upon written notice of not less than 90 days. The provisions of Defense Acquisition Regulation (DAR) Clauses 7-1902.16, 7-1909.5, and 7-190.13 are hereby incorporated into this Agreement.

Upon termination of this Agreement, NAVMTO agrees to pay handling charges only for the material that is turned over to NAVMTO or a new Agent.

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- 27. Ibid.
- 28. Ibid.
- 29. Interview with LCDR Ornelas, Commander Naval Surface Force, U.S. Pacific Fleet, Readiness Support Group, Subject: Use of Air Freight Forwarders for Expediting Fleet Material for Deployed Ships, 8 August 1985.
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